

IN THE CLAIMS:

Please cancel Claims 2, 5, 6, 14, 15, and 17 without prejudice or disclaimer of the subject matter recited therein.

Please amend Claims 1, 3, 4, 7-11, 13, and 19-23, and please add Claims 24-29 as follows:

1. (Currently Amended) ~~An apparatus for indicating the history of the environmental conditions of the environment in which said apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of said apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused, said apparatus comprising:~~

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of said unit and said apparatus in ~~the~~ an environment, depending on the ~~level~~ degree of deterioration of said unit due to the environment in which said apparatus is used, ~~which depends on the history of environmental conditions of the environment in which said apparatus was used;~~ and

~~environmental history~~ deterioration indicator means for indicating the degree of deterioration of said recoverable and reusable unit due to the environment in which said apparatus is used before said unit is reconditioned for reuse ~~in accordance with the history of conditions in the environment in which said apparatus was used,~~

said ~~environmental history~~ deterioration indicator means being disposed inside said apparatus,

the deterioration-resisting power of said ~~environmental history~~ deterioration indicator means that deteriorates over time due to the environment in which said apparatus is used being less than or equal to the deterioration-resisting power of said recoverable and reusable unit, ~~having a property variable in accordance with the history of the conditions in the environment in which said apparatus was used;~~

said ~~environmental history~~ deterioration indicator means being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

said ~~environmental history~~ deterioration indicator means determining the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse by permitting a determination of the ~~value of the property~~ degree of deterioration thereof thereof; ~~variable in accordance with the history of conditions in the environment in which said apparatus was used;~~

~~wherein said environmental history indicator means maintains the state of deterioration of the property.~~

2. (Cancelled).

3. (Currently Amended) An apparatus according to claim 1, wherein said ~~environmental history~~ deterioration indicator means is arranged to be mountable and dismountable on and from a body of said apparatus either singly or together with said unit and is formed in such a shape as to enable an inspection device to measure a property of said ~~environmental history~~ deterioration indicator means representing the deterioration of said deterioration indicator means in a state of being dismounted from the body of said apparatus.

4. (Currently Amended) An apparatus according to claim 1, wherein said unit includes an optical member, and said ~~environmental history~~ deterioration indicator means has a property which is a measure of the deterioration of said deterioration indicator means ~~varies according to an environmental history with respect~~ due to the temperature and/or humidity of the environment in which said apparatus is used.

Claims 5 and 6 (Cancelled).

7. (Currently Amended) A management system for an apparatus ~~for indicating the history of the environmental conditions of the environment in which the apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of the apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused,~~ the apparatus comprising a recoverable and reusable unit performing a function independent of determining the degree of deterioration of ~~said the~~ recoverable and reusable unit, which is recoverable and reusable after use of the unit and the apparatus in the an environment in which the apparatus is used, depending on the ~~level degree~~ of deterioration of the unit, due to the environment in which the apparatus is used ~~which depends on the history of environmental conditions of the environment in which the apparatus was used,~~ and ~~environmental history~~ deterioration indicator means for indicating the degree of deterioration of ~~said the~~ recoverable and reusable unit before ~~said the~~ unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said apparatus was used, ~~said environmental history~~ the deterioration indicator means being disposed inside the apparatus, the ~~environmental history~~ deterioration-resisting power of the deterioration indicator means that

~~deteriorates over time due to the environment in which the apparatus is used being less than or equal to the deterioration-resisting power of the recoverable and reusable unit, having a property variable in accordance with the history of the conditions in the environment in which the apparatus was used, the environmental history deterioration indicator means being arranged so as not to participate in any functions of the apparatus during use of the apparatus, the environmental history deterioration indicator means determining the degree of deterioration of the recoverable and reusable unit before the unit is reconditioned for reuse by permitting a determination of the degree of deterioration thereof value of the property thereof, variable in accordance with the history of conditions in the environment in which the apparatus was used, wherein the environmental history indicator means maintains the state of deterioration of the property, said management system comprising a device to manage the apparatus, wherein a process to be applied to the unit is determined according to a result of measurement, by an inspection device, of the degree of deterioration property of the environmental history deterioration indicator means.~~

8. (Currently Amended) A management system according to claim 7, wherein said process to be applied to ~~said~~ the unit is a process to determine whether or not said unit is to be reused.

9. (Currently Amended) A management system according to claim 7, wherein said process to be applied to ~~said~~ the unit is a process to determine whether ~~said~~ the unit is to be reused as it is, or to be reused after cleansing, or to be sent to a material-based classifying recycling process.

10. (Currently Amended) An apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use; and

~~environmental history~~ deterioration indicator means for indicating the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse ~~in accordance with the history of conditions in the environment in which said apparatus was used,~~

said ~~environmental history~~ deterioration indicator means being disposed inside said apparatus to determine the degree of deterioration of said recoverable and reusable unit,

the deterioration-resisting power of said ~~environmental history~~ deterioration indicator means that deteriorates over time due to the environment in which said apparatus is used being less than or equal to the deterioration-resisting power of said recoverable and reusable unit having a property variable in accordance with an environmental history of use of said apparatus and said deterioration indicator means being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said ~~environmental history~~ indicator means maintains the state of deterioration of the property, and

wherein the degree of deterioration of said deterioration indicator means ~~value of said variable property~~ is determined by using an inspection device to inspect said ~~environmental history~~ deterioration indicator means, so that said ~~environmental history~~ deterioration indicator means comprises means for providing the value of ~~the variable~~ a deterioration property thereof in response to inspection by the inspection device before the said unit is reconditioned for reuse.

11. (Currently Amended) An apparatus including a unit which is recoverable and reusable after use, said apparatus comprising:

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable according to an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said unit includes an optical member, and said environmental history indicator member has a property which varies according to an environmental history with respect to temperature and/or humidity,

wherein said environmental history indicator member is an optical filter having a light transmitting property which varies according to an environmental history with respect to temperature and/or humidity. ~~humidity~~;

~~wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.~~

12. (Previously Presented) An apparatus according to Claim 11, wherein the property of said environmental history indicator member deteriorates over time and wherein said environmental history indicator member maintains the state of deterioration of the property.

13. (Currently Amended) An apparatus including a lens unit which is recoverable and reusable after use, said apparatus further comprising:

~~environmental history~~ deterioration indicator means for indicating the degree of deterioration of said lens unit before said lens unit is reconditioned for reuse due to the environment in which said lens unit is used ~~in accordance with the history of conditions in the environment in which said lens unit was used,~~

said ~~environmental history~~ deterioration indicator means being disposed inside said apparatus,

the deterioration-resisting power of said ~~environmental history~~ deterioration indicator means that deteriorates over time due to the environment in which said apparatus is used being less than or equal to the deterioration-resisting power of said lens unit,

said deterioration indicator means having a deterioration property that can be measured and whose measured value represents the degree of deterioration of said deterioration indicator means, ~~having a property variable according to an environmental history of use of said apparatus and maintaining the state of the property after the property changes its value in response to the history of conditions in the environment in which said lens unit was used and~~

said deterioration indicator means being arranged so as not to participate in any functions of said apparatus during use of said apparatus.

14. (Canceled)

15. (Cancelled)

16. (Cancelled)

17. (Cancelled)

18. (Cancelled)

19. (Currently Amended) An apparatus ~~for indicating the history of the environmental conditions of the environment in which said apparatus is used before a unit thereof is reconditioned for reuse to permit a determination of the level of deterioration of a recoverable and reusable unit of said apparatus and a determination of whether the recoverable and reusable unit can be recovered and reused,~~ said apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use of said unit and said apparatus in the environment, depending on the level degree of deterioration of said unit due to the environment, ~~which depends on the history of environmental conditions of the environment in which said apparatus was used;~~ and

an ~~environmental history~~ deterioration indicator member disposed inside said apparatus, the deterioration-resisting power of said ~~environmental history~~ deterioration indicator member that deteriorates over time due to the environment in which said apparatus is used being less than or equal to the deterioration-resisting power of said recoverable and reusable unit, having a property variable in accordance with the history of the conditions in the environment in which said apparatus was used;

said ~~environmental history~~ deterioration indicator member being arranged so as not to participate in any functions of said apparatus during use of said apparatus,



said ~~environmental history~~ deterioration indicator member determining the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse by permitting a determination of the degree of deterioration thereof ~~value of the property thereof,~~ ~~variable in accordance with the history of conditions in the environment in which said apparatus was used,~~

~~wherein said environmental history indicator member maintains the state of deterioration of the property;~~

wherein said unit is a lens unit.

20. (Currently Amended) An apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use; and

~~an environmental history~~ a deterioration indicator member disposed inside said apparatus to determine the degree of deterioration of said recoverable and reusable unit,

the deterioration-resisting power of said ~~environmental history~~ deterioration indicator member that deteriorates over time due to the environment in which said apparatus is used being less than or equal to the deterioration-resisting power of said recoverable and reusable unit, ~~having a property variable in accordance with an environmental history of use of said apparatus~~ and said deterioration indicator member being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

~~wherein said environmental history indicator member maintains the state of deterioration of the property; and~~

wherein the ~~degree of deterioration of said deterioration indicator member~~ value of said variable property is determined by using an inspection device to inspect said deterioration indicator member, so that said ~~environmental history~~ deterioration indicator member comprises means for providing ~~the a~~ a value of the deterioration of said deterioration indicator member ~~variable property~~ in response to inspection by the inspection device before the unit is reconditioned for reuse,

wherein said unit is a lens unit.

21. (Currently Amended) An apparatus including a unit which is recoverable and reusable after use, said apparatus comprising:

an environmental history indicator member disposed inside said apparatus, said environmental history indicator member having a property variable according to an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said unit is a lens unit ~~and includes an optical member~~, and said environmental history indicator member has a property which varies according to an environmental history with respect to temperature and/or humidity,

wherein said environmental history indicator member is an optical filter having a light transmitting property which varies according to an environmental history with respect to temperature and/or humidity, ~~humidity~~, and

~~wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.~~

22. (Currently Amended) An optical apparatus comprising:  
a lens unit which is recoverable and reusable after use; and  
an ~~environmental history~~ deterioration indicator member disposed inside said apparatus,  
the deterioration-resisting power of said ~~environmental history~~ deterioration indicator  
member that deteriorates over time due to the environment in which said apparatus is used being  
less than or equal to the deterioration-resisting power of said lens unit ~~having a property that~~  
~~varies according to the environmental history of use of said optical apparatus,~~  
wherein the service life of said lens unit is affected by an environmental factor,  
wherein the environmental factor causes ~~the property of said environmental history~~  
deterioration indicator member, and said lens unit to deteriorate,  
~~wherein said environmental history indicator member resists the deteriorating effect of~~  
~~the environmental factor less than said lens unit; and~~  
wherein said ~~environmental history~~ deterioration indicator member maintains ~~the~~ its state  
of deterioration ~~of the property of said environmental history indicating member~~ even if it is  
dismounted from said optical apparatus.

23. (Currently Amended) An optical apparatus comprising:  
a unit which is recoverable and reusable after use; and  
an ~~environmental history~~ deterioration indicator member disposed inside said apparatus,  
the deterioration-resisting power of said ~~environmental history~~ deterioration indicator  
member that deteriorates over time due to the environment in which said apparatus is used being  
less than or equal to the deterioration-resisting power of said unit ~~having a property that varies~~  
~~according to the environmental history of use of said optical apparatus,~~

wherein the service life of said unit is affected by an environmental factor,  
wherein the environmental factor causes ~~the property of said environmental history~~  
deterioration indicator member and ~~less~~ unit to deteriorate,  
~~wherein said environmental history indicator member resists the deteriorating effect of~~  
~~the environmental factor less than said unit,~~  
wherein said ~~environmental history~~ deterioration indicator member maintains ~~the~~ its state  
of deterioration ~~of the property of said environmental history indicating member~~ even if it is  
dismounted from said optical apparatus, and  
wherein said optical apparatus is an image reading apparatus, photo printer or a video  
camera.

24. (New) An apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the  
degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable  
after use; and

environmental history indicator means for indicating the degree of deterioration of said  
recoverable and reusable unit before said unit is reconditioned for reuse in accordance with the  
history of conditions in the environment in which said apparatus was used, said environmental  
history indicator means being disposed inside said apparatus to determine the degree of  
deterioration of said recoverable and reusable unit, said environmental history indicator means  
having a property variable in accordance with an environmental history of use of said apparatus  
and being arranged so as not to participate in any functions of said apparatus during use of said  
apparatus,

wherein said environmental history indicator means maintains the state of deterioration of the property, and

wherein the value of said variable property is determined by using an inspection device to inspect said environmental history indicator means, so that said environmental history indicator means comprises means for providing the value of the variable property in response to inspection by the inspection device before the unit is reconditioned for reuse, wherein said unit is a lens unit.

25. (New) An apparatus comprising:

a recoverable and reusable unit performing a function independent of determining the degree of deterioration of said recoverable and reusable unit, which is recoverable and reusable after use; and

environmental history indicator means for indicating the degree of deterioration of said recoverable and reusable unit before said unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said apparatus was used, said environmental history indicator means being disposed inside said apparatus to determine the degree of deterioration of said recoverable and reusable unit, said environmental history indicator means having a property variable in accordance with an environmental history of use of said apparatus and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said environmental history indicator means maintains the state of deterioration of the property, and

wherein the value of said variable property is determined by using an inspection device to inspect said environmental history indicator means, so that said environmental history indicator means comprises means for providing the value of the variable property in response to inspection by the inspection device before the unit is reconditioned for reuse,

wherein said apparatus is an image reading apparatus, a photo printer, or a video camera.

26. (New) An apparatus according to Claims 11 or 21, wherein said apparatus is an image reading apparatus, a photo printer, or a video camera.

27. (New) An apparatus including a lens unit which is recoverable and reusable after use, said apparatus further comprising:

environmental history indicator means for indicating the degree of deterioration of said lens unit before said lens unit is reconditioned for reuse in accordance with the history of conditions in the environment in which said lens unit was used, said environmental history indicator means being disposed inside said apparatus, said environmental history indicator means having a property variable according to an environmental history of use of said apparatus and maintaining the state of the property after the property changes its value in response to the history of conditions in the environment in which said lens unit was used and being arranged so as not to participate in any functions of said apparatus during use of said apparatus,

wherein said apparatus is an image reading apparatus, a photo printer, or a video camera.

28. (New) An apparatus according to Claim 11, wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass,

gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.

29. (New) An apparatus according to Claim 21, wherein said optical filter as said environmental history indicator member is composed of an ND filter, copper phosphate glass, gelatin or optical glass having a refractive index of substantially 1.6 to 1.65 and an Abbe number of substantially 60.